



MCCE NEWS

MONTANA COUNCIL FOR COMPUTERS
AND
TECHNOLOGY IN EDUCATION

Vol. 15, No. 3

June 2003

Billings Senior High captures 1st place for online newspaper

By Vince Long

The online version of Billings Senior High School's newspaper, The Bronc Express Online, captured the "Best High School Newspaper Web Site" category in the 2003 Montana Interscholastic Editorial Association (MIEA) annual high school competition.



The judge commented that the site "is up to date, easy to navigate, and well-designed." Additionally, the judge

Bronc Express

commented that the site "loads quickly and old stories are easy to access." Interestingly, the Bronc Express Online was the only high school to place in the competitions, leaving 2nd and 3rd place positions unawarded. The judge indicated that remaining sites had navigation difficulties, broken links, and out of date content.

The Bronc Express Online is the result of a collaboration between the students of Senior High's journalism teacher Steve Gardiner and technology teacher Vince Long. Steve took over the school paper at the beginning of the school year and, due to their previous cross-curricular collaborations, this was a natural project for them to tackle. Steve appointed one of his editors, Kale Bauer, as the online editor, the one person responsible for submitting content to the online paper. Vince assigned three of his third semester programming students to the task of creating the framework of the paper. All communication between Kale and the technology students was done via email.

(Continued on Page 3)

Rocky launches programming competition for high school students

The Rocky Mountain College Department of Computer Science, announces the 2003 Computer Programming Competition for High School Teams to be held on November 8, 2003 in Billings, Montana. Programming teams comprised of up to four high school juniors and seniors from Montana and Wyoming will compete for scholarships and equipment by solving programming problems using any of a variety of programming languages. Judging will be based on the time required to reach a correct solution as well as a qualitative assessment of solutions by a panel of RMC faculty, students and computing industry professionals.

The contest will be conducted on Saturday, November 8. Teams arriving in Billings on Friday are invited to participate in RMC "Technology Night" presentations that explore the Computer Science and Information Technology department resources and programs. Other special activities are being planned expressly for Programming Competition teams on Friday evening.

Rocky has more information on their web site including registration information, computer languages used, and meal and lodging information. The address is:

<http://cs.rocky.edu/>

(Continued on Page 5)

In This Issue

Student Newspaper Wins Award	Page 1
Programming Competition	Page 1
UofM Courses	Page 2
Music Software Review	Page 4
Membership Form	Page 6

Spotlight on Library Media and Instructional Technology Courses Offered by University of Montana's School of Education

Library Media Courses – On campus

June 16 – July 3, 3:00 – 6:00 p.m.

C&I 546, Advanced Young Adult Literature (3 credits)

Read many of the books you wished you had an excuse earlier to read. Examine YA lit via literary critical theories. And learn the world of young readers today. Come see the books, feel the reactions, and enjoy sharing about your favorite authors and titles. Taught by Carolyn Lott, Professor, Library Media.

July 7 – 25, 8:00 – 11:00 a.m.

C & I 483: Library Media Technical Processes (3 credits)

From catalog cards to MARC (Machine Readable Catalog) records -
From original cataloging to copy cataloging - AACR2R - OCLC - LCSH This course is designed to take the mystery out of creating catalog records for every item in your school library. Taught by Coby Johnson, Cataloger at The University of Montana Mansfield Library, has been cataloging for many years. Her dry sense of humor makes what could be a very dry subject fun and entertaining.

Instructional Technology Courses

On campus, June 16 – July 3 and July 7 – 25, 3:00 – 6:00 p.m.

C&I 515: Computers and other Technological Applications in Education (3 credits)

This course, which is part of the Curriculum and Instruction Masters core, provides an overview of instructional media. Through extensive use of multimedia computer equipment, students will collaboratively select specific topics of interest and develop appropriate multimedia units, projects, and presentations. Taught by Sandra Williams, Assistant Professor, Business and Information Technology in Education program.

Note: This course also will be offered at Corvallis High School this summer as part of the Bitterroot Cohort.

On campus, July 7 – 25, 11:30 a.m. – 2:30 p.m.

C&I 580: Distance learning theory and implementation

Over 50% of the high schools in the United States are offering online courses. Even more universities have

chosen this method of delivering courses. In this course, we will explore different methods of delivery, some of the research supporting this type of delivery, and methods of assessing not only student work but also the courses being offered. Students in this course will design their own course using Blackboard software. Taught by Sally Brewer, Associate Professor of Library Media and Technology, who has been teaching online for several years.

Online, June 16 – August 1

C&I 570: Instructional Technology Foundations (\$495.00)

This course is designed to provide students with an overview of the learning theories and instructional design models that form the foundation of instructional technology. We will cover the learning theories that underpin the instructional models that are used with technology. Instructional systems design models and curriculum models also will be explored. This course provides a foundation for other courses, which are part of the Master of Education in Instructional Design for Technology. Taught by Sally Brewer.

C&I 582 Educational Technology: Trends and Issues 3 credits (\$495.00)

Investigate using multimedia as a tool for teaching/learning. We will tell personal stories using MS PowerPoint, use WebQuests to help structure student learning, and hold discussions on seamless infusion and integration of technology in the pK-12 curriculum. Taught by David Erickson, Associate Professor, Curriculum and Instruction, who has been instrumental in developing the Master in Education in Instructional Design for Technology program.

Other Courses of Note - On Campus

June 16 - July 3, 11:30 a.m. – 2:30 p.m.

C&I 501, Curriculum Design, Implementation, and Evaluation

Be prepared to work on curriculum committees; look at curricular guides and know the professional development necessary to implement the programs; know

(Continued on Page 5)



Join ISTE, the national voice for
the Montana Council for Comput-
ers and Technology in Education.

<http://www.iste.org>

Bronc Express online

(Continued from Page 1)

One of the advantages of an online paper is being able to publish without the space limitations found in traditional, paper-based issues. As long as there is space on the hard drive of the server, students' stories will appear as part of the paper. Serving a paper on a web site also opens the possibilities of publishing pictures, sounds, and videos along with the text.

While the journalism students looked toward having their work put online, the programming students had to build an interactive web site to support that content. Needing what was essentially a database management system, they looked at using existing, stand-alone, open source software to handle the task. One of the more interesting, and popular choices was PHP-Nuke (www.phpnuke.org), a news and discussion bulletin board program. It is extremely powerful but the interactive discussion feature was not something that was needed for the project. Ultimately was decided to develop an application from scratch using PHP and MySQL as PHP-Nuke had utilized.

PHP(www.php.net) is a programming language that is uniquely suited to use in web site development and can be embedded directly in the HTML of a web page. Its syntax is similar to Perl, C, Pascal, and Java, making it easier to learn if one is already familiar with one of these high-level programming languages. The students on this project had learned Perl during the previous semester and were very

familiar with building web pages using HTML. MySQL (www.mysql.com) is a database server. It supports the standard query language (SQL) and is known for its speed. It is also free.

The programming students, Nick Howard, Scott Serfazo, and Hunter Kincaid, all learned to install and configure PHP, MySQL, and Sambar (a webserver). They then proceeded through a series of PHP tutorials available through various web sites. One is at the aforementioned home of PHP and the other is found in the programming section of Webmonkey (www.webmonkey.com). After several weeks they began the process of laying out the web page. A mock-up was put online and they received feedback from the journalism class. About this time the three students started to specialize in various aspects of the site project. Scott favored working in the layout and graphics of the pages, while Hunter dealt with some graphics and the user interface for site updating. Nick dived right in to the PHP part of the job.

The site went online shortly before the winter break and was under continuous revision until the end of the school year. As stories were submitted, Hunter would check them for formatting and submit them to the server by filling out a form that allows him to place headlines, bylines, and story content into the different fields used in the MySQL server. Nick was continuously refining and adding features. He wrote a search engine that allows users to search for past articles by keyword, title, author, and section. He added a voting booth and redesigned the front page of each section to include teaser lines from each story.

The big problem that looms now is that the three programming students and Kale are all graduating. Who is to take up the project next year? At the end of the spring semester another programming student stepped forward and expressed an interest in learning what Nick had done. Nick wrote a user's manual as his last assignment and with the ease at which the project has progress so far, it should continue to do so in the coming year. To visit the site:

<http://senior.billings.k12.mt.us/bexpress/>

MCCE NEWS

MCCE NEWS is published several times per year by the Montana Council for Computers and Technology in Education. The contents are Copyright © 2003, by MCCE and the authors of the individual articles.

**Next Submission Deadline:
September 12, 2003**

**This and past issues of MCCE News are available on the World Wide Web at:
<http://senior.billings.k12.mt.us/mcce/>**

WANTED

Newsletter Articles for MCCE News

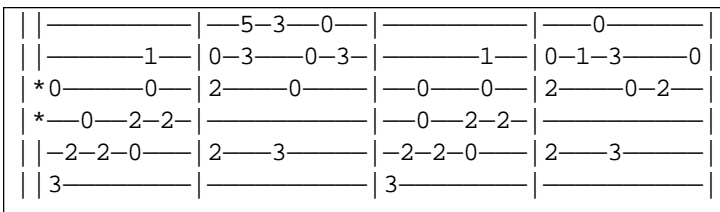
Software Reviews,
Classroom Technology Tips, Student-
Written Stories, Web Site Reviews

Utility makes guitar tabs from MIDI files

by Vince Long

There is no shortage of MIDI files on the Internet. Just go to Google (www.google.com) and enter "MIDI" in the search box and you'll get a list of over 8 million links. In case you are out of the loop, a MIDI file is a music file, usually created with an electronic keyboard, that features many channels, each with its own instrument. Depending on the quality of the playback equipment, MIDI files can sound remarkably like a live, multi-instrument recording. MIDI files on the Internet cover virtually every musical genre from classical to pop to country to rock. MIDI files are, by their nature, instrumentals, making them useful as a karaoke files as well. A good MIDI player will allow you turn the various instruments on or off so you can fill in with your own instrument or add a voice.

Another form of music popular on the Internet is the Tab file. Tabs, or tabulature, are a form of sheet music for stringed instruments. The most common are for the 6-string guitar and show, graphically, using text characters, the layout of the fingerboard and the locations where the notes are played. For example, in the graphic below, the high-E is shown on the top and the low-E is shown on the bottom. The tab is read from left to right and the numbers represent on which fret the note is played. The vertical bars represent each measure.



Tabs, like MIDIs, are easily found on the Internet. One of the best sites is HarmonyCentral (www.harmony-central.com) which has an extensive collection arranged by artist as well as online guitar lessons.

So, sitting there with the guitar, trying to pick out the melody in a MIDI file, "Stardust" by Hoagy Carmichael, I started wondering how hard it would be to convert a MIDI file into tabulature, considering that I hadn't found a tab for it. After all, a MIDI file is well-documented format that is used by a variety of electronic musical instruments as well a computers. Figuring that I am not the first one to wonder about this, I did a search on Google and found many links to COMP-G-TAB (users.erols.com/hillels/cgtab/start.htm), a program that reads MIDI files and converts them into guitar tabulature. Within a few minutes of downloading the program I had a tab for "Stardust."

The program does a great job doing the conversion, though not always perfect. The challenge for the program is to convert fingering that was originally played on a keyboard to fingering that works well on a guitar. I agree with the program's author that the program does this correctly about 85% of time. However, since the tab files it produces are plain text, making changes is very easy.

The program has many options. You can examine, save, or print individual tracks. Using the controls in the Options Menu the program can be used to make bass guitar tabs as well as transposing to different frets. There is a built in guitar chord finding tool that displays chord patterns graphically and it also functions as a MIDI player.

The program is distributed as demoware. You can use it for free 30 times after which you will have to pay the very reasonable \$18.00. It requires Windows 99x/Me/2000/Xp.

One note of caution. Many songs are copyrighted so be sure to observe the rules under fair use in the copyright law.

Free videos available

In The Classroom Media is offering free video tapes to schools across the nation. The tapes feature newsman John Stossel and cover a variety of topics appropriate to social studies, business, economics, history, government, and debate classes.

To obtain the tapes is necessary fill out an online form at this web site:

<http://www.intheclassroom.org/forms/mt.htm>

The site also has detailed information about each of the videos offered. The only catch is that the producers want feedback on how the videos were used in the classroom.

CARET provides answer to questions about educational technology

CARET bridges education technology research to practice by offering research-based answers to critical questions. CARET (Center for Applied Research in Educational Technology) is a project of the International Society for Technology in Education in collaboration with Education Support Systems and the Sacramento County Office of Education. CARET is funded with a grant from the Bill & Melinda Gates Foundation.

Topic include:

[Student Learning](#)

[Curriculum and Instruction](#)

[Online Teaching and Learning](#)

[Professional Development](#)

[Assessment and Evaluation](#)

Access CARET online at:

<http://caret.iste.org/>

University of Montana courses

(Continued from Page 2)

what kinds of curriculum evaluation data to collection and how to use those data. Join us for this core curriculum course during summer 2003. Taught by Professor Carolyn Lott.

July 7 – 25, 6:00 –9:00 p.m.

C&I 542 Supervision and Teaching Mathematics (3 credits)

Curriculum trends, instructional materials including appropriate technology, and techniques for assessing student learning come together in this course for K-12 teachers of mathematics based on current quality research in mathematics instruction and learning. Participants will develop a personal project for their teaching/supervision situation.

Associate Professor David Erickson

For more information, contact:

Sally Brewer at (406) 243-2563 or sally.brewer@mso.umt.edu

David Erickson at (406) 243-5318 or erickson@selway.umt.edu

Carolyn Lott at (406) 243-5785 or carolyn.lott@mso.umt.edu

Sandra Williams at (406) 243-4073 or swilliam@selway.umt.edu

Programming competition at Rocky Mountain College

(Continued from Page 1)

For more information you can also contact:

Rocky Mountain College Outreach 406-657-1040

K. Stuart Smith, Professor of Computer Science 406-238-7381

Lyle Courtnage, Director of Information Technology 406-657-1127





The 24th annual National Educational Computing Conference

is coming to Seattle:
June 29–July 2, 2003

<http://www.neccsite.org/>

Montana Council for Computers and Technology in Education Membership Form

Last Name _____ First Name _____

Mailing Address _____

City _____ State _____ Zip _____

Home Phone _____ E-mail _____

New Member _____ Renewal _____

Area of Interest: College _____ High School _____ K-8 _____

Please be an active member by indicating your area(s) of interest:

_____ willing to be an officer _____ willing to submit articles for the newsletter

_____ willing to be on the Board of Directors _____ willing to work on MCCE committees

_____ willing to be on a committee for a convention

Dues: _____ \$12.00 per year _____ \$30.00 for 3 years

Mail the completed membership form and dues to:

Desiree' Baisden
Skyview High School
1775 High Sierra
Billings, MT 59101